

In the Claims:

1 1. (Currently Amended) A method for blending images into a ~~single~~
2 composite image, comprising:
3 selecting two images having overlapping content;
4 dividing the two images into strips;
5 selecting a strip in each of the two images where the two images overlap
6 each other;
7 determining differences between the overlapping ~~two~~ strips;
8 determining a minimized line through the overlapping strips where the
9 differences between the overlapping strips are minimized; and
10 blending the two images together along the minimized line to create a
11 ~~single~~ composite image.

1 2. (Currently Amended) The method according to claim 1, wherein
2 the selected images belong to a set of ~~two or more~~ images comprising a scene.

Claims 3-4 (Cancelled).

1 5. (Original) The method according to claim 1, wherein the selected
2 images are divided along a common plane.

1 6. (Original) The method according to claim 1, wherein the selected
2 images are divided into strips along one of a vertical plane or a horizontal plane.

1 7. (Original) The method according to claim 1, wherein the two
2 overlapping strips are selected according to a mean squared difference algorithm
3 such that the sum of the mean squared difference values between the two
4 selected strips is minimized.

1 8. (Cancelled).

1 9. (Currently Amended) The method according to claim 1, including:
2 calculating a squared color difference value for each pixel pair between
3 the overlapping strips;
4 converting the squared color difference values into a gray scale image of
5 the overlapping strips, wherein the brightest pixels in the gray scale image
6 correspond to the pixels of greatest difference between the two overlapping
7 strips;
8 sorting the gray scale pixels from largest to smallest difference value;
9 for each sorted gray scale pixel, mapping the gray scale pixel to one of
10 two regions within the overlapping strip according to the adjacency of the gray
11 scale pixel to the one of the two regions;
12 determining a cut line between the two regions;
13 cutting each selected image along the cut line within the overlapping strip
14 of each selected image; and
15 combining the two cut selected images along the cut line to form the
16 single composite image.

1 10. (Original) The method according to claim 9, wherein the cut line is
2 determined between a first region and a second region to which the pixels have
3 been mapped.

1 11. (Original) The method according to claim 9, wherein the cut line
2 corresponds to the line of best match between the overlapping strips.

1 12. (Original) The method according to claim 9, wherein at least one of
2 the cut images is warped along the cut line to improve the fit between the two
3 cut images along the cut line.

1 13. (Cancelled).

1 14. (Currently Amended) The method according to claim 1, wherein
2 the blending of images is performed iteratively, with the blended ~~single~~
3 composite image being utilized as one of the selected two images to be blended.

1 15. (Currently Amended) The method according to claim 14, wherein
 2 the method of blending is performed iteratively until all images comprising the
 3 scene have been blended into a final ~~single~~ image of the scene.

1 16. (Currently Amended) A method for blending two images into a
 2 ~~single~~ composite image, comprising:
 3 dividing two images into strips along a common plane;
 4 selecting a strip in each image where the two images overlap, wherein
 5 the selecting comprises selecting the overlapping strips which have reduced
 6 error between the ~~selected~~ overlapping strips compared with non-selected
 7 overlapping strips of the two images;
 8 determining a minimized line through the selected overlapping strips
 9 where differences between the selected overlapping strips are minimized;
 10 blending the two images along the ~~determined~~ minimized line to create a
 11 ~~single~~ composite image; and
 12 warping the ~~single~~ composite image to minimize blurring along the
 13 ~~blending~~ minimized line.

1 17. (Previously Presented) The method according to claim 16, wherein
 2 the minimized line is determined by calculating mean squared difference values
 3 for pairs of pixels between the two selected overlapping strips.

1 18. (Previously Presented) The method according to claim 16, wherein
 2 at least one of the images is warped where the differences between the selected
 3 overlapping strips along the blending line exceed a predetermined threshold.

Claims 19-20 (Cancelled).

1 21. (Currently Amended) A computer-based system for blending
 2 images into a ~~single~~ composite image, comprising:
 3 a computer configured to:
 4 divide two images having overlapping content into strips along a common
 5 plane wherein each strip is a long and narrow piece of the image having one

dimension which is greater than another dimension of the respective strip;
select a strip of uniform width in each of the two images where the two
images overlap each other;
determine pixel difference values between the overlapping ~~two~~ strips;
determine a minimized line through the overlapping strips where a sum of
the pixel difference values between the overlapping strips is minimized; and
blend the two images together along the minimized line to create a ~~single~~
composite image.

22. (Currently Amended) The system according to claim 21, wherein
the two overlapping strips are selected according to a mean squared difference
algorithm such that the sum of the mean squared difference values between the
~~two~~ overlapping strips is minimized.

23. (Currently Amended) The system according to claim 21, wherein
the computer is configured to:
calculate a squared color difference value for each pixel pair between
the overlapping strips;
convert the squared color difference values into a gray scale image of the
overlapping strips, wherein the brightest pixels in the gray scale image
correspond to the pixels of greatest difference between the two overlapping
strips;
sort the gray scale pixels from largest to smallest difference value;
for each sorted gray scale pixel, map the gray scale pixel to one of two
regions within the overlapping strip according to the adjacency of the sort gray
scale pixel to the one of the two regions;
determine a cut line between the two regions;
cut each image along the cut line of the overlapping strip of each image;
and
combine the two cut images along the cut line to form the ~~single~~
composite image.

1 24. (Original) The system according to claim 23, wherein the cut line
2 is determined by calculating mean squared difference values for pairs of pixels
3 between the two selected image strips.

1 25. (Original) The system according to claim 23, wherein at least one
2 of the images is warped where the differences between the selected strips along
3 the cut line exceed a predetermined threshold.

1 26. (Currently Amended) A system for blending images into a ~~single~~
2 composite image, comprising:

3 means for dividing two images having overlapping content into strips
4 along a common plane in at least one region of overlap wherein each strip is a
5 long and narrow piece of the image having one dimension which is greater than
6 another dimension of the respective strip;

7 means for calculating difference values between image data content of
8 respective pixels of the two images in corresponding strips of uniform length in
9 the at least one region of overlap;

10 means for determining a cut line through the two images where the
11 difference values are minimized; and

12 means for blending the two images along the cut line to create a ~~blended~~
13 single composite image.

1 27. (Currently Amended) A system for blending images into a ~~single~~
2 composite image, comprising:

3 a first computing module dividing two images having overlapping content
4 into strips along a common plane in at least one region of overlap;

5 a second computing module calculating difference values between pixels
6 of the two images in the at least one region of overlap, wherein the difference
7 values individually correspond to a difference of image data content between a
8 pair of corresponding pixels of the two images;

9 a third computing module determining a cut line through the two images
10 where the difference values are minimized; and

11 a fourth computing module blending the two images along the cut line to

12 create a ~~blended single~~ composite image.

1 28. (Currently Amended) The system according to claim 27, including
 2 selecting two overlapping strips according to a mean squared difference
 3 algorithm such that the sum of the mean squared difference values between the
 4 two overlapping strips is minimized.

1 29. (Currently Amended) The system according to claim 27, including:
 2 a fifth computing module cutting the two images along the cut line; and
 3 a sixth computing module joining the cut images together to create the
 4 ~~single~~ composite image.

1 30. (Cancelled).

1 31. (Currently Amended) The system according to claim 27, wherein
 2 the blending of images is performed iteratively, with the ~~blended single~~
 3 composite image being utilized as one of the two images to be blended.

1 32. (Cancelled).

1 33. (Currently Amended) A computer readable medium storing
 2 software for blending images into a ~~single~~ composite image, wherein the
 3 software is provided for:
 4 selecting two images having overlapping content;
 5 dividing the two images into strips along a common plane where the two
 6 images overlap each other;
 7 selecting a strip in each of the two images;
 8 determining the differences between the overlapping ~~two~~ strips;
 9 determining a minimized line through the overlapping strips where the
 10 differences between the overlapping strips are minimized; and
 11 blending the two images together along the minimized line to create a
 12 ~~single~~ composite image.

1 34. (Cancelled).

1 35. (Currently Amended) The software according to claim 33, wherein
2 the two overlapping strips are selected according to a mean squared difference
3 algorithm such that the sum of the mean squared difference values between the
4 ~~two~~ overlapping strips is minimized.

1 36. (Currently Amended) The software according to claim 33,
2 wherein the software is provided for:

3 calculating a difference value for each pixel pair between the two
4 overlapping strips;

5 converting the calculated difference values into a gray scale image of the
6 overlapping strips, wherein the brightest pixels in the gray scale image
7 correspond to the pixels of greatest difference between the two overlapping
8 strips;

9 sorting the gray scale pixels from largest to smallest difference value;

10 for each sorted gray scale pixel, mapping the gray scale pixel to a first
11 region or a second region within the overlapping strip according to the adjacency
12 of the gray scale pixel to the first region or the second region;

13 determining a cut line within the overlapping strips between the first
14 mapped region and the second mapped region;

15 cutting each selected image along the cut line of the overlapping strip of
16 each selected image; and

17 combining the two cut selected images along the cut line to form the
18 single composite image.

1 37. (Currently Amended) The method according to claim 1, wherein
2 the selecting comprises selecting the strips of the two images which provide
3 reduced error between the ~~selected~~ overlapping ~~two~~ strips compared with non-
4 selected strips of the two images.

1 38. (Currently Amended) The method according to claim 1, wherein
2 the determining differences comprises determining differences between image
3 data content of the overlapping ~~two~~ strips.

1 39. (Currently Amended) The method according to claim 38 wherein
2 the determining differences between image data content comprises determining
3 differences between the image data content of one pixel of one of the
4 overlapping ~~two~~ strips and one pixel of another of the overlapping ~~two~~ strips and
5 wherein the one pixels of the one and the another of the overlapping ~~two~~ strips
6 both correspond to the same subject present in the two images.

1 40. (Currently Amended) The method according to claim 38 wherein
2 the determining differences comprises determining differences between the
3 image data content comprising color space content of the overlapping ~~two~~
4 strips.

1 41. (Previously Presented) The system according to claim 27, wherein
2 the pairs of the pixels individually correspond to the same subject present in the
3 two images.

1 42. (Previously Presented) The method according to claim 1, wherein
2 the selecting a strip in each of the two images comprises selecting the strips in
3 the two images which comprise the same content of a scene present in the two
4 images.

1 43. (Previously Presented) The software according to claim 33,
2 wherein the selecting a strip in each of the two images comprises selecting the
3 strips in the two images which comprise the same content of a scene present in
4 the two images.

1 44. (New) The method according to claim 1, wherein the selectings,
2 dividing, determinings and blending comprise selectings, dividing, determinings
3 and blending using processing circuitry.

1 45. (New) The method according to claim 1, further comprising storing
2 the composite image.

1 46. (New) The method according to claim 45, further comprising
2 displaying the composite image.

1 47. (New) The method according to claim 16, wherein the dividing,
2 selecting, determining, blending and warping comprise dividing, selecting,
3 determining, blending and warping using processing circuitry.

1 48. (New) The method according to claim 16, further comprising
2 storing the composite image.

1 49. (New) The method according to claim 48, further comprising
2 displaying the composite image.